

FIFTH QUARTER	T	L	Credit
MAS - 211 Estimating and Building Forms for Concrete	5		5
MAS - 261 Estimating and Building Forms for Concrete Lab		10	3
MAS - 212 Pouring and Finishing Concrete Slabs	5		5
MAS - 262 Pouring and Finishing Concrete Slabs Lab		10	3
	10	20	16
SIXTH QUARTER			
MAS - 221 Commercial Construction Wall	5		5
MAS - 271 Commercial Construction Wall Lab		10	3
MAS - 222 Special Projects in Commercial Construction	5		5
MAS - 272 Special Projects in Commercial Construction Lab		10	3
	10	20	16

MASONRY COURSE DESCRIPTION

MAS 111 - Orientation & Shop Safety Rules

Students receive information on shop procedures, safety, and the required books and materials. A general overview is also given on the masonry program and the current job outlook.

MAS 112 - Tools & Equipment — Identification & Use

Theory lessons with practical applications on identifying, use and safety operations of masonry tools and equipment.

MAS 113 - Blueprint Masonry, Site Preparation, Foundations & Footings

This course teaches the fundamentals of drawing, estimating, squaring, leveling and layout of buildings.

MAS 161 Blueprint Masonry, Site Preparation, Foundations and Footings

Students receive practical experience from live work projects.

MAS 121 Estimating Brick & Block Masonry Units

Students learn to figure out and estimate material for various jobs.

MAS 171 Estimating Brick & Block Masonry Units Lab

Practical applications of the theory learned in MAS 121.

MAS 122 Hand & Machine Mix Mortar

Students learn how to properly proportion sand, water and mortar.

MAS 172 Spreading Mortar

Practical applications of theory learned in MAS 122

MAS 123 Laying Brick and Various Bond Walls

A study of the various bonds and patterns in brickwork.

MAS 173 Laying Brick and Various Bond Walls Lab

Hands-on experience which carries out the theories and principles of MAS 123.

MAS 131 Bricks and Blocks

Students learn the various sizes, kinds and classes of bricks.

MAS 181 Bricks and Blocks Lab

Students receive practical experience from live work projects.

MAS 132 Residential Construction (Brick & Block Veneer Walls)

A study of the basic components required to construct houses and other smaller units.

MAS 182 Residential Construction (Brick & Block Veneer Walls Lab)

Live work projects and shop training relative to principles learned in the classroom.

MAS 133 Commercial Construction I

A theory class that prepares students in basic commercial building construction.

MAS 183 Commercial Construction I Lab

Practical applications of lessons taught in MAS 133.

MAS 141 Residential Chimneys and Fireplaces

A theory class which includes a study of the basic components of chimney and fireplace construction in houses. Conventional and manufactured units are studied.

MAS 191 Residential Chimneys and Fireplaces Lab

Students will receive actual experience in building chimneys and fireplaces in the shop and in the community from live work projects.

MAS 142 Blueprint Reading

Students will learn to read the different kinds of drawings (floor plans, elevations, details, and sections).

MAS 192 Blueprint Reading Usage Lab

Practical applications of theory taught in MAS 142.

MAS 211 Estimating and Building Forms for Concrete

Students will learn to estimate material used in form construction.

MAS 261 Estimating and Building Forms for Concrete Lab

Students will lay out and erect forms.

MAS 212 Pouring and Finishing Concrete Slabs

Students will learn the various textures that can be applied to concrete flat work.

MAS 262 Pouring and Finishing Concrete Slabs Lab

Students will use the necessary tools to accomplish the various finished textures.

MAS 221 Commercial Construction Wall

Students will learn to use a combination of masonry materials in constructing walls.

MAS 271 Commercial Construction Wall Lab

Students will construct a composite wall.

MAS 222 Special Projects in Commercial Construction

An introduction to designing and laying custom masonry work (barbecue pits, arches, tile construction, and glass blocks).

MAS 272 Special Projects in Commercial Construction Lab

Practical applications of MAS 222.



PLUMBING/PIPEFITTING
6 QUARTERS

Plumbers and pipefitters install, repair and maintain plumbing systems. This occupation is one of the most highly skilled and highest paid of the building trades. Job opportunities are excellent in this field in view of present and anticipated construction activity, including erection of new structures and the alteration and modernization of existing structures.

Although plumbing and pipefitting are sometimes considered to be a single trade, a worker can specialize either in one craft or the other, particularly in large cities. Water, gas and waste disposal systems, especially those connected to public utility systems, are installed by plumbers. These installations are made in residential and commercial buildings, schools, industrial plants and other structures. Plumbers and pipefitters use a variety of skills in installing pipe systems. They bend, weld, braze, caulk, solder and thread joints. They use wrenches, reamers, drills, braces and bits, hammers, chisels, saws and other hand tools. Hand operated hydraulic pipe benders are also used.

An apprentice achieves journeyman status after a five-year apprenticeship or on-the-job training. A worker must pass a state examination and obtain a license before he can become a journeyman. Some journeymen plumbers and pipefitters may become foremen for plumbing or pipefitting contractors. Many journeymen go into business for themselves. As they expand their activities, they may employ other workers, and become plumbing and pipefitting contractors.

PLUMBING/PIPEFITTING

FIRST QUARTER	T	L	Credit
PLB 111 - Introduction to Plumbing	5		5
PLB 112 - Construction Safety	2		2
PLB 113 - Introduction to Tools and Materials	3		3
PLB 161 - Tools and Equipment Lab		15	5
RMA 111 - Related Mathematics	5		5
	15	15	20

SECOND QUARTER	T	L	Credit
PLB 121 - Plumbing Joints and Supports ..	5		5
PLB 122 - Sanitary Systems I	5		5
PLB 171 - Sanitary Systems Lab I		10	3
RCS 111 - Related Communication Skills ..	5		5
PLB 172 - Introduction to Electricity		5	2
	15	15	20

THIRD QUARTER	T	L	Credit
PLB 131 - Potable Water Piping	5		5
PLB 181 - Water Pipe Lab		10	3
PLB 132 - Installation of Plumbing Fixtures	5		5
RMA 112 - Related Mathematics	5		5
PLB 182 - Space Heating		5	2
	15	15	20

FOURTH QUARTER	T	L	Credit
PLB 141 - Introduction to Process Piping ..	5		5
PLB 191 - Process Piping Lab		10	3
PLB 142 - Introduction to Oxy- acetylene Welding	5		5
PLB 192 - Oxy-Acetylene Welding Lab		5	2
PLB 193 - Alternate Energy		5	2
	10	20	17

FIFTH QUARTER	T	L	Credit
PLB 211 - Introduction to Gas Pipe and Heating Equipment	5		5
PLB 261 - Gas Pipe and Heating Equipment Lab		10	3
PLB 212 - Introduction to Arc Welding ...	5		5
PLB 262 - Arc Welding Lab		5	2
PLB 263 - Related Science		5	2
	10	20	17

SIXTH QUARTER	T	L	Credit
PLB 221 - Boiler and Pressure Vessels	5		5
PLB 271 - Boiler Lab		10	3
OR			
(PLB 224 - Pipe Welding)			
(PLB 272 - Pipe Welding Lab)			
PLB 222 - Business Practice	5		5
PLB 223 - Plumbing Code Review	5		5
Plumbing Dept. Optional Module	5		5
	20	10	23

PLUMBING AND PIPEFITTING COURSE DESCRIPTIONS

PLB 111-Introduction to Plumbing

Introduces new plumbing students to the basic systems involved in "plumbing". The course also presents a historic overview of the craft and explains the modern Apprentice-Journeyman-Master relationships.

PLB 112-Construction Safety

An introductory module in shop and construction job site safety. This course includes personal safety, proper material handling, machine and welding safety and explains the duties of each employee in maintaining a safe work environment.

PLB 113 & 161-Materials and Tools of the Plumbing Trade

This is a theory/lab module that introduces the various types of pipe used in the plumbing trade and their general application. Emphasis is placed on currently used equipment.

PLB 121-Plumbing Joints and Supports

This module presents the basic methods of joining pipe and fitting in the major plumbing systems. Emphasis is placed on modern methods.

PLB 122 & 171-Sanitary Systems I & Sanitary Lab I

This theory/lab module introduces students to the installation of sanitary drainage pipes. Primary emphasis is given to wood construction.

PLB 131 & 181-Potable Water and Potable Water Lab

An Introduction to the installation of drinking water including copper and plastic applications.

PLB 132-Installation of Plumbing Fixtures

A theory/lab module that presents the correct techniques for setting, aligning, and testing plumbing fixtures.

PLB 141 & 191-Introduction to Gas and Process Piping and Gas and Process

This module includes SSBC gas regulations and practical applications.

PLB 142 & 192-Introduction to Oxy-Acetylene Cutting and Welding

An introductory module that includes the theory and application of flame cutting. This module also presents the operation of welding related tools.

PLB 211 & 261-Gas Pipe and Heating Equipment and Gas Pipe and Heating Equipment Lab

This module will introduce the student to installation of gas pipe for buildings and service. Students will install steel and plastic pipe, perform testing and connect heating appliance to the gas lines.

PLB 212 & 262-Introduction to Arc Welding and Arc Welding Lab

An introduction to electric welding techniques as used in pipefitting; includes Stick, MIG, and TIG information.

PLB 223-Plumbing Code Review

This module is designed to prepare advanced plumbing students to understand the Tuscaloosa Journeyman's Examination.

OPTIONAL MODULES

PLB 221 & 271-Boiler and Pressure Vessels and Boiler and Pressure Vessels Lab

An introduction to steam boilers modules intended for students desiring to work in a plant environment. Includes basic equipment and maintenance. This course involves live work on boilers.

PLB 224 & 272-Pipe Welding and Pipe Welding Lab

This module will introduce the student to field welding of piping systems. The module will explore the use of electric welding machines in the shop and gas powered welding machines in the field. Stick and Tig welding will be covered.

PLB 231 & 281-Rural Plumbing & Rural Plumbing Lab

This module is designed for students from rural communities. It includes well pump septic tank installation and repair.

PLB 234-Plumbing Estimating

A theory class that introduces plumbing students to business practices. It is designed for students that wish to operate their own plumbing businesses.

PLB 235 & 285-Systems Repair and System Repair Lab

This module is intended for students with career goals that are service oriented. Application of advanced theory is carried out in fixture repair, sewer and water pipe maintenance, and heating equipment repair. Additional theory lessons are studied and applied to live work projects.

RELATED INSTRUCTIONS**PLB 171-Introduction to Electricity**

Presents basic electric wiring of plumbing appliances and electric safety on the job site.

PLB 182-Space Heating

A survey module in methods of building, heating and cooling.

PLB 193-Alternate Energy

A survey module of new energy sources used, installed, or repaired by plumbers.

PLB 222-Business Practice

A survey course intended to give plumbing students an overview of construction business practices.

PLB 263-Related Science

A module designed to present practical application of science to plumbing students.

**SECRETARIAL TECHNOLOGY
4 QUARTERS**

The Secretarial program offers men and women an opportunity to develop those skills, abilities, and an understanding that will enable them to enter, perform, and progress in a position in the modern business office. It also provides them with the occupational intelligence that will enable them to fit into and find job satisfaction in the labor force of our complex and dynamic economy. The secretary performs a variety of clerical duties, such as taking and transcribing dictation, processing mail, filing, receiving and screening telephone callers, etc. Secretaries and stenographers are employed throughout the economy. About two-thirds of them work in banks, insurance companies, real estate firms, government agencies, and other establishments providing services to the public. Most specialized stenographers and secretaries work for doctors, lawyers, and other professional people.

SECRETARIAL TECHNOLOGY

	T	L	Credit
FIRST QUARTER			
SEC 111 - Typing I	2	3	3
SEC 112 - Shorthand I	5		5
SEC 161 - Shorthand Lab I		5	2
SEC 113 - Business English	5		5
SEC 114 - Business Filing and Record Control	2	3	3
SEC 115 - Business Math	5		5
	19	11	23
SECOND QUARTER			
SEC 121 - Typewriting II	2	3	3
SEC 122 - Shorthand II	5		5
SEC 171 - Shorthand Lab II		5	2
SEC 123 - Business English II	5		5
SEC 124 - Office Machines I	2	3	3
SEC 125 - Business Math II	5		5
	19	11	23
THIRD QUARTER			
SEC 131 - Typewriting III	2	3	3
SEC 132 - Shorthand III	2		2
SEC 181 - Shorthand Lab III		3	1
SEC 133 - Business English III	5		5
SEC 134 - Secretarial Office Procedures I ..	2	3	3
SEC 135 - Introduction to Computing	2	3	3
SEC 136 - Business Law	5		5
	18	12	22
FOURTH QUARTER			
SEC 141 - Typewriting IV	2	3	3
SEC 142 - Shorthand IV	5		5
SEC 191 - Shorthand Lab IV		5	2
SEC 143 - Business English IV	5		5
SEC 144 - Secretarial Office Procedures II	2	3	3
SEC 145 - Accounting	5		5
	19	11	23

SECRETARIAL COURSE DESCRIPTIONS

SEC 111-Typewriting I

An introductory course designed to acquaint the students with typewriter parts and functions; proper typewriting techniques; the touch system of covering the letter, number and symbol keys. Also, the build speed and accuracy relative to straight copy control.

SEC 112-Shorthand I

A study of basic principles of the Gregg Shorthand System, including the alphabet, brief forms, phrasing principles, and abbreviation principles. Development of skill in reading, introduction of dictation techniques, and development of pretranscription skills are included in this course.

SEC 161-Shorthand Lab I

Practical applications of Shorthand I theory lessons.

SEC 113-Business English

Designed to give the student a thorough background and/or review of our language structure. Emphasis is placed on vocabulary study.

SEC 114-Business Filing and Records Control

This course provides a knowledge of the rules, procedures, and techniques of the four basic filing systems; also, terminology, transfer, storage, retrieval systems and records control in a business setting. A filing practice set provides practical application.

SEC 115-Business Math

Designed to give students increased competency in the basic fundamentals of math. Emphasis is placed on adding, subtracting, multiplying, and dividing whole numbers, fractions, and decimals, and on solving problems by using aliquot parts.

SEC 121-Typewriting II

A continuation of skill building along with practical application of basic skills in centering business letters, tabulations simple reports, and composing at the typewriter.

SEC 122-Shorthand II

Continuation of Shorthand I mastery of basic shorthand theory. Development of accuracy and speed in writing shorthand from dictation, and an introduction to transcription from printed shorthand.

SEC 171-Shorthand Lab II

Practical applications of Shorthand II theory lessons.

SEC 123-Business English II

A continuation of Business English I with emphasis on parts of speech and sentence structure. Continues to stress vocabulary.

SEC 124-Office Machines I

Designed to enable the student to become proficient in the use of electronic printing and display calculators. Emphasis is on calculating or solving typical business problems through the processes of adding, subtracting, multiplying, and dividing.

SEC 125-Business Math II

A continuation of Business Math I. This course is designed to help students learn mathematical concepts through practical application in business situations. Emphasis is placed on percentages, simple interest, cash and trade discounts, banking procedures, payroll records and deductions, and markup.

SEC 131-Typewriting III

This course introduces the students to production typewriting. Students devote more time to problem solving a variety of communication problems. Letters with special features, manuscripts with footnotes, and tabulations are included. Further improvement of basic speed and accuracy skills.

SEC 132-Shorthand III

The development of skill in taking dictation of unfamiliar material at progressively higher rates of speed with emphasis placed on mailable transcripts.

SEC 181-Shorthand Lab III

Practical applications of Shorthand III theory lessons.

SEC 133-Business English III

Continuation of sentence structure with emphasis on punctuation and proofreading. Introduction of letter writing.

SEC 134-Secretarial Office Procedures I

This course has two purposes: to aid the student in developing professional attitudes (Human Relations) and to aid in demonstrating skillful competence in performing many different duties through simulated office activities with end-of-part exercises and projects.

Sec 135-Introduction to Computing

The computing class is designed to provide the students with the entry level job skills needed to operate a computer in a competent manner. Concentration is placed on computer familiarization, programming, graphics, and word processing. The BASIC language, with an emphasis on programming business applications is taught.

SEC 136-Business Law

A study of business law helps the student develop a better understanding of the law as it applies to business situations and transactions. Emphasis is placed on our system of courts, contracting, property ownership, sales, and employee/employer relationships.

SEC 141-Typewriting IV

Production measurement is emphasized in this final course. Specialized office (general, accounting, executive, legal, medical, government, and technical) typewriting is provided in a simulated arrangement. The main objective is to achieve vocational competency.

SEC 142-Shorthand IV

Development of speed and accuracy in taking dictation and in transcribing. Machine transcription is introduced.

SEC 191-Shorthand Lab IV

Practical applications of Shorthand IV theory lessons.

SEC 143-Business English IV

All areas of communication. An intensive final course that includes correct form, placement, grammar, punctuation, and spelling for effective mailable business correspondence of all types such as business letters, memorandums, reports (formal and informal), news releases, minutes, etc.

SEC 144-Secretarial Office Procedures II

A continuation of Secretarial Office Procedures I.

SEC 145-Accounting

This course provides the students with the basic understanding of accounting principles and practices. Emphasis is placed on analyzing, journalizing, posting, and preparing financial reports.



SEWING MACHINE MECHANICS

5 QUARTERS

Sewing Machine Mechanics is a 15-month instructional program that provides both basic and advanced technology in the repairing of industrial sewing machines and mechanical accessories, such as: cloth cutting machines, spreading machines, cloth fusing machines, die cutting machines, pneumatic accessories, seam equipment, and electrical components.

When training is completed, the graduates are qualified to work as sewing machine repairpersons, machine salespersons, or maintenance mechanics.

There is a great demand for journeyman helpers, apprentices, and master sewing machine mechanics in industries and neighborhood repair shops.

SEWING MACHINE MECHANICS

FIRST QUARTER

SMM 111 - Introduction to Sewing Industry	5		5
SMM 112 - Factory Methods	5		5
SMM 113 - Garment Construction	5		5
RMA 111 - Related Mathematics	5		5
SMM 161 - Factory Methods Lab		5	2
SMM 162 - Garment Construction Lab ...		5	2
	20	10	24

SECOND QUARTER

SMM 121 - Lockstitch Formation	5		5
SMM 122 - Lockstitch Machines I	5		5
SMM 171 - Servicing Lockstitch Machines Lab		15	5
RCS 111 - Related Communication Skills ..	5		5
	15	15	20

THIRD QUARTER

SMM 131 - Chainstitch Formations I	5		5
SMM 181 - Chainstitch Machines Lab	5	10	8
SMM 182 - Servicing Chainstitch Machines Lab		10	3
	10	20	16

FOURTH QUARTER

SMM 141 - Timing Sewing Machines	5		5
SMM 191 - Timing Sewing Machines Lab ..		10	3
SMM 142 - Special Machines	5		5
SMM 192 - Special Machines Lab		10	3
	10	20	16

FIFTH QUARTER

SMM 211 - Special Attachments	5		5
SMM 261 - Special Attachments Lab		10	3
SMM 212 - Auxiliary Equipment I & II ...	5		5
SMM 262 - Auxiliary Equipment I & II Lab		10	3
	10	20	16

SEWING MACHINE MECHANICS
COURSE DESCRIPTIONS**SMM 111-Introduction to Sewing Industry**

This course is an introduction to history of the development of the sewing machine with general nomenclature of sewing machine parts. Includes shop safety (OHSA) and job opportunities for sewing machine mechanics.

SMM 122 & 161-Factory Methods and Factory Methods Lab

This course helps the student develop an understanding of assembly line organization and layout for garment factory operations. Includes machines used for different types of garments.

SMM 113 and 162-Garment Construction and Garment Construction Lab

This course teaches the types of cloth, thread and needles and cutting techniques used in garment construction.

SMM 121-Lockstitch Formation

This course teaches the identification of basic lockstitches and seams with the recognition of various problems.

SMM 122-Lockstitch Machines I

This course helps the student to develop proficiency on the identification, disassembly, cleaning, and lubrication of lockstitch machines.

SMM 171-Servicing Lockstitch Machines Lab

This course helps to expand the student's ability in adjusting, repairing, and maintaining lockstitch machines.

SMM 131-Chainstitch Formations I

Identification of Basic Chain-stitch and seams with recognition of various problems.

SMM 181-Chainstitch Machines Lab

This course helps the student to develop proficiency in the identification disassembly, cleaning, and lubrication of chainstitch machines.

SMM 182-Servicing Chainstitch Machines Lab

This course helps to expand the student's ability adjusting, repairing, and maintaining chainstitch machines.

SMM 141 and 191-Timing Sewing Machines and Timing Sewing Machines Lab

This course teaches the student the practical application of timing of lockstitch and chainstitch machines by manual.

SMM 142-Special Machines

This course helps the student develop a more indepth knowledge of the identification, disassembly and lubrication of special machines including button sewing, bar tack, and multi-needle machines.

SMM 192-Special Machines Lab

This course is a continuation of adjusting, repairing, and maintaining special machines, including button sewing, bar tack, and multi-needle machines.

SMM 211-Special Attachments I

This course introduces and teaches the students to make, adjust, repair, and maintain special attachments; such as pneumatic and electrical controls and devices, and jigs and folders.

SMM 261-Special Attachments Lab

Laboratory application for Special Attachments I.

SMM 212-Auxiliary Equipment I & II

This course is designed to help the students master the art of preventive maintenance by learning to adjust, repair, and maintain equipment such as steam boilers, heating and cooling units, and pressing and fusing machines.

SMM 262-Auxiliary Equipment I and II Lab

Laboratory applications for Auxiliary Equipment I.



SMALL ENGINE MECHANICS 5 QUARTERS

The Small Engine Mechanic uses common tools such as wrenches and other hand tools as well as special tools designed for working with hard-to-remove parts. Special testing equipment is also used to make problems easier to diagnose.

In diagnosing malfunctions, the mechanic may use special testing equipment and "strip down" some components for closer examination. Once the defective parts are located, the mechanic repairs or replaces them.

Small Engine Mechanics

FIRST QUARTER

SEM 111 - Orientation and Shop Safety ...	5		5
SEM 161 - Shop Safety Lab		5	2
SEM 112 - Two and Four Cycle Engines ..	5		5
SEM 162 - Two and Four Cycle Engines Lab		10	3
RMA 111 - Related Mathematics	5		5
	<u>15</u>	<u>15</u>	<u>20</u>

SECOND QUARTER

SEM 121 - Blades, Clutches, and Drive Mechanism	5		5
SEM 171 - Blades, Clutches, and Drive Mechanism Lab		5	2
SEM 122 - Tune-Ups	2		2
SEM 172 - Tune Up Lab		5	2
SEM 123 - Carburetion and Fuel System ..	3		3
SEM 173 - Carburetion and Fuel System Lab		5	2
RCS 111 - Related Communication Skills ..	5		5
	<u>15</u>	<u>15</u>	<u>21</u>

THIRD QUARTER

SEM 131 - Electrical Systems	5		5
SEM 181 - Electrical Systems Lab		5	2
SEM 132 - Chain Saw	5		5
SEM 182 - Chain Saw Lab		10	3
SEM 133 - Troubleshooting	2		2
SEM 183 - Troubleshooting Lab		3	1
	<u>12</u>	<u>18</u>	<u>18</u>

FOURTH QUARTER

SEM 141 - Marine Engines	10		10
SEM 191 - Marine Engines Lab		20	7
	<u>10</u>	<u>20</u>	<u>17</u>

FIFTH QUARTER

SEM 211 - Motorcycles	10		10
SEM 261 - Motorcycles Lab		20	7
	<u>10</u>	<u>20</u>	<u>17</u>

SMALL ENGINE REPAIR COURSE DESCRIPTIONS

SE 111 and 161-Orientation and Shop Safety and Shop Safety Lab

Acquaints the students with course objectives, class policies and procedures, proper use of hand and power tools, and overall safety practices.

SE 112 and 162-Two and Four Cycle Engines and Two and Four Cycle Engines Lab

An indepth study of the principles with practical applications of the two and four cycle engines. This includes disassembling, inspection, rebuilding, reassembling, tune-up service maintenance, etc.

SE 121 and 171-Blades, Clutches and Drive Mechanism and Blades, Clutches, and Drive Mechanisms Lab

A complete study of all types of clutches, belts and drive mechanisms such as transmissions and differentials. Live work projects are available for practical applications.

SE 122 and 172-Tune-up and Tune-up Lab

Fundamentals of minor and major tune-up of the small gasoline engine. Emphasis is placed on systematic approaches and the time element. Live work projects are used in the lab.

SE 123 and 173-Carburetion and Fuel Systems and Carburetion and Fuel Systems Lab

A study of the major carburetors, fuel pumps, lines, filters and tanks. Practical applications are carried out in the shop utilizing prescribed safety standards.

SE 131 and 181-Electrical Systems and Electrical Systems Lab

A basic study of electricity, magnetic properties, generators, alternators, starter motors, coils, condensers, batteries, battery ignition systems and solid state ignition systems. Hands-on experience is provided in the lab.

SE 132 and 182-Chain Saw and Chain Saw Lab

Theory and practical studies on the various processes of inspecting and repairing chain saws. The laboratory provides actual work experience.

SE 133 and 183-Troubleshooting and Troubleshooting Lab

Diagnosis of problems by visual inspection and simple test procedures to determine the time and parts needed to make repairs. Students are given actual problems in the shop on which to practice the theory taught in the classroom.

SE 141 and 191-Marine Engines and Marine Engines Lab

A comprehensive study of power heads, magnets, starters, fuel systems, and other major components of marine engines. The laboratory will provide opportunities to disassemble, clean, inspect and reassemble these major components.

SE 211 and 261-Motorcycle and Motorcycle Lab

An indepth study of engines, metric measuring, wheels, brakes, carburetors, exhaust systems, electrical systems, clutches, cables, fuel, lubricants and suspension transmissions. The Ken Cook Training Unit is utilized. Live Work is provided for actual experience.



UPHOLSTERY

8 QUARTERS

No home is complete without some type of upholstered furniture. Furniture upholstery involves a mastery of techniques on a wide variety of pieces ranging from elaborate settees and upholstered chairs to recreation room furniture and inexpensive dinette sets. Upholstered furniture is covered with leather, brocade, velveteen, rayon, cotton, wool, fabric blends, and plastic. Some pieces are tufted or piped, others plain, some have braiding or welt around the sides, and others are trimmed with bright upholstery tacks.

Whatever the type of covering, style, or decoration, all upholstered furniture is the handwork of a group of skilled craftsmen known as upholsterers.

Upholstery is not only confined to furniture for the home, but also includes the interior of automobiles.

UPHOLSTERY

FIRST QUARTER

UPH 111 - Introduction to Upholstery	5		5
UPH 112 - Tools and Equipment	5		5
UPH 161 - Tools and Equipment Lab		15	5
RMA 111 - Related Mathematics	5		5
	15	15	20

SECOND QUARTER

UPH 121 - Stripping and General Repair	5		5
UPH 171 - Stripping and General Repair Lab ..		20	7
RCS 111 - Related Communication Skills	5		5
	10	20	17

THIRD QUARTER

UPH 131 - Padding and Stuffing	10		10
UPH 181 - Padding and Stuffing Lab		20	7
	10	20	17

FOURTH QUARTER

UPH 141 - Sewing Machine Measuring	5		5
UPH 191 - Sewing Machine Measuring Lab ..		10	3
UPH 142 - General Repair	5		5
UPH 192 - General Repair Lab		10	10
	10	20	23

FIFTH QUARTER

UPH 211 - Job Planning & Auto Upholstering	10		10
UPH 261 - Job Planning & Auto Upholstering Lab		20	7
	10	20	17

SIXTH QUARTER

UPH 221 - General Repair II	5		5
UPH 271 - General Repair Lab II		10	3
UPH 222 - Coverings	5		5
UPH 272 Coverings Lab		10	3
	10	20	16

SEVENTH QUARTER

UPH 231 - Decorative Trim Work	5		5
UPH 281 - Decorative Trim Work Lab		10	3
UPH 232 - Finishing, Refinishing & Touch-Up	5		5
UPH 282 - Finishing, Refinishing and Touch-Up Lab		10	3
	10	20	16

EIGHTH QUARTER

UPH 241 - General Repair III	5		5
UPH 291 - General Repair III Lab		5	2
UPH 242 - Layout for Tufting	5		5
UPH 292 - Layout for Tufting Lab		5	2
UPH 243 - automobile Upholstery	5		5
UPH 293 - Automobile Upholstery Lab		5	2
	15	15	21

UPHOLSTERY COURSE DESCRIPTIONS

UPH 111-Introduction to Upholstery and Course Orientation

This includes a brief history of upholstery, course requirements, housekeeping, safety and class standards.

UPH 112 and 161-Tools and Equipment and Tools and Equipment Lab

This course teaches the student how to identify and properly use tools and equipment required for course. Safety precautions are stressed.

UPH 121-Stripping and General Repairing

Principles of stripping frames, replacing broken parts and gluing.

UPH 171-Stripping and General Repairing Lab

Practical applications of UPH 121.

UPH 131-Padding and Stuffing

A series of studies on procedures of padding and stuffing. Flat, crowned and overstuffed methods are involved.

UPH 181-Padding and Stuffing Lab

Training sessions using live work to teach the principles learned in UPH 121.

UPH 141-Sewing Machine Measuring

Theory classes on layout for tufting, paneling, piping, gimping and making skirts and pillows.

UPH 191-Sewing Machine Measuring Lab

Practical applications for theories studied in the classroom.

UPH 142-General Repair

Emphasis on padding, making welt, sewing corners and curves.

UPH 192-General Repair Lab

Laboratory experiences in general repair principles.

UPH 211-Job Planning and Auto Upholstering

Measuring, recording and determining texture and nature of materials.

UPH 261-Job Planning and Auto Upholstering Lab

Applying methods and procedures taught using live work projects.

UPH 221-General Repair II

Advanced theory Classes in methods and procedures of general repair.

UPH 271-General Repair II Lab

Laboratory experiences for UPH 212.

UPH 222-Coverings

A comprehensive study of flat surfaces, bases, arms, backs, cushions and pillows.

UPH 272-Coverings Lab

Actual experiences are provided in lab for the theories taught in the classroom.

UPH 231-Decorative Trim Work

Theory lessons on the finishing touches of jobs such as french tufting and buttoning, piping and channeling, paneling, skirting and gimping.

UPH 281-Decorative Trim Work Lab

Live work experiences in decorative trim projects.

UPH 232-Finishing, Refinishing and Touch-Up

This class exposes the student to the principles on repairing the woodwork of furniture. Included are stripping, sanding, painting and spraying methods and procedures.

UPH 282-Finishing, Refinishing and Touch-UP Lab

Laboratory training sessions on the various methods of finishing and refinishing furniture.

UPH 241-General Repair III

Advanced principles in all skills involved in upholstery. This will include touch-up and polishing, replacing broken parts, proper use of tools, setting, spring tying, edging burlaping, padding designs, welting and sewing covers.

UPH 242-Layout for Tufting

A study of all types of tufting including French tufting. This course also involves theory lessons on piping, channeling, paneling, gimping, skirting and buttoning.

UPH 292-Layout for Tufting Lab

Students are provided opportunities to practice the theory learned in the classroom.

UPH 243-Automobile Upholstery

Theory classes in three levels of auto trim and parts. Studies will include procedures for upholstering sets, door panels, carpeting, arm rests, deck panels, sunvisors, etc.

UPH 293-Automobile Upholstery Lab

Application of theory is carried out on live work brought into the shop.

RELATED INSTRUCTION

Related instruction includes Related Communication Skills and Related Mathematics that are directly related to the course requirements for each occupation. All students who enroll at Fredd State must take at least one quarter of each of these subjects. Depending on test scores from the California Achievement Test given by the college, some students may be required to take some courses within the Prevocational program before taking related subjects.

RELATED SUBJECTS COURSE DESCRIPTIONS

RCS 111-Related Communications

This course is designed to help students acquire knowledge and skills in basic communications and develop personal qualities which contribute to job success.

RCS 112-Related Communications

This course is designed to improve speaking and writing skills related to job success. Course content includes practical learning activities which will help the student attain his/her occupational goal.

RMS 111-Related Mathematics Skills

Basic Mathematics is taught in this course. It is designed to give students a chance to develop basic skills in mathematics necessary for his/her studies and on-the-job activities in trade and technical areas. An effort is made to relate mathematics to the students' core subjects.

RMS 112-Related Mathematics Skills

A study of the basic concepts and operations of algebra; algebraic symbols; signed numbers, equations of first degree; special products and factoring-fractions and applications.

THE PREVOCATIONAL PROGRAM

DEVELOPMENTAL ENGLISH

Noncredit-Individualized instruction in basic English grammar designed to help students develop basic skills. Emphasis is on the sentence as a thought unit; one or two quarters, depending on the student's performance on a criterion-referenced basic skills inventory.

DEVELOPMENTAL MATHEMATICS

Noncredit-Individualized instruction in basic mathematics. Enrollment is for one or two quarters based on the student's performance on a criterion-referenced basic math skills inventory.

DEVELOPMENTAL READING

Noncredit-Individualized instruction in vocabulary and comprehension. Emphasis is on reading and interpreting programmed material. Enrollment is based on the student's performance on a criterion-referenced basic reading skills inventory.

ADMINISTRATIVE STAFF

Norman C. Cephus President
 JoAnn Cousette Secretary
 Richard Moton Financial Aid Director
 Ronnie Rose Business Manager
 Eliza B. Smith Accountant III/Cashier
 Minnette L. Smith Secretary/Cashier
 Shirley B. Spencer Registrar
 Horace B. Whitfield Dean of Student Services
 Delaine Wilder Secretary

INSTRUCTIONAL STAFF

Kurt Anderson Electronics Technology
 Ruby N. Bennett Related Communications
 James Blackmon, Jr. Barbering
 Johnny Burton Auto Body Repair
 Edith W. Byrd Pre-Vocational
 George T. Craig Sewing Machine Mechanics
 C. A. Fredd, Jr. Electricity/Electronics
 John L. Freed Graphic & Printing Communications
 Sadie Gibson Secretarial Technology
 Willie M. Gray Secretarial Technology
 Robert T. Martin, Jr. Plumbing/Pipefitting
 Johnny L. Morrow Small Engine Mechanics
 Union B. Morrow Masonry
 William L. Rodgers Related Mathematics
 Yvonne W. Rodgers Secretarial Technology
 George Rogers Upholstery
 Patsy P. Tant Commercial Sewing
 Samuel Wilder Carpentry

MAINTENANCE

Jessie Mays Superintendent of Buildings/Grounds
 Queen Milton (Part-time) Custodian
 Nathaniel Short Maintenance Personnel

TRANSPORTATION

Andrew Rogers Supervisor/Mechanic

EVENING INSTRUCTIONAL STAFF

Gerald King Consumer Electronics
 Shelly McKanstry Secretarial Technology
 Annie J. Ware Commercial Sewing
 Mary Wells Secretarial Technology

TITLE III STAFF

Karen Crombie . Mgmt. Information Spec./Faculty Dev.
 S. N. Gaines Media Specialist
 Louise B. Lewis Title III Coordinator
 Samuel Merriweather Career Center Coordinator
 Earnest L. Palmer Curriculum Specialist
 Andrea Smith Secretary
 Katherine Williams Secretary



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Approved by the State Department of Education.
All programs approved for Veterans training.